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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,350	03/29/2004	Yongbin Yuan	1-23361	2687
46582 75	90 02/27/2006		EXAMINER	
MACMILLAN, SOBANSKI & TODD, LLC			SICONOLFI, ROBERT	
ONE MARITIME PLAZA - FOURTH FLOOR 720 WATER STREET			ART UNIT	PAPER NUMBER
	TOLEDO, OH 43604			
			DATE MAILED: 02/27/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/812,350	YUAN ET AL.
Office Action Summary	Examiner	Art Unit
	Robert A. Siconolfi	3683
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim fill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).
Status		
<ul> <li>1) ⊠ Responsive to communication(s) filed on 21 Dec</li> <li>2a) ☐ This action is FINAL. 2b) ☒ This</li> <li>3) ☐ Since this application is in condition for alloware closed in accordance with the practice under E</li> </ul>	action is non-final. nce except for formal matters, pro	
Disposition of Claims		
4) ☐ Claim(s) 23-51 is/are pending in the application 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 23-51 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or Application Papers 9) ☐ The specification is objected to by the Examine	vn from consideration. r election requirement.	
10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the confidence of th	epted or b) objected to by the liderawing(s) be held in abeyance. See ion is required if the drawing(s) is obj	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of	s have been received. s have been received in Applicati ity documents have been receive ı (PCT Rule 17.2(a)).	on No ed in this National Stage
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) ☐ Interview Summary Paper No(s)/Mail Da	
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date		atent Application (PTO-152)

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#### **DETAILED ACTION**

## Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/21/05 has been entered.

## Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 23-29, 33-39 43-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Horth.

Horth discloses the use of an aqueous solution of sodium silicate with aluminum oxide (alumina) and bound with a liquid phenolic resin (see column 2 lines 38-60). Mixture can be applied numerous ways, column 2 lines 27-32.

### Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 32, 42, 51 rejected under 35 U.S.C. 103(a) as being unpatentable over Horth.

Horth is relied upon as above. Horth does not disclose the coating thickness used. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed range of thickness in order to have an appropriate coating thickness so as to achieve the function of maintaining appropriate friction levels during the initial period but not as to interfere with the operation of the brake after the initial wear in phase has passed.

6. Claims 30,31,40,41,49,50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horth in view of Parker.

Horth is relied upon as above. Horth does not disclose the use of iron oxide as the abrasive. Parker teaches the use of iron oxide as the abrasive with a 4 to 1 weight ratio (see column 4 line 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use iron oxide as the abrasive in the coating of Horth as they are considered equivalents for this function and the choice of materials is based on factors such as cost and ease of use and therefore one would have chosen iron oxide as a matter of design choice.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Siconolfi whose telephone number is 571-272-7124. The examiner can normally be reached on M-F 10 am-3 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert A. Siconoffi
Primary Examiner
Art Unit 3683